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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/531,632      | 10/31/2005  | Jeong-Il Seo         | 51876P839           | 6223             |

8791 7590 02/06/2008  
BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
1279 OAKMEAD PARKWAY  
SUNNYVALE, CA 94085-4040

|           |  |
|-----------|--|
| EXAMINER  |  |
| LEE, PING |  |

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
| 2615     |              |

|            |               |
|------------|---------------|
| MAIL DATE  | DELIVERY MODE |
| 02/06/2008 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/531,632

Applicant(s)

SEO ET AL.

Examiner

Ping Lee

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/8/07</u>   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. After performing additional search, a new reference, Potard et al, has been discovered. Potard et al is more closely related to the current invention as disclosed in the specification than Padula, the reference used for the last office action mailed on 7/26/07. The claimed invention is much broader than what is disclosed in the specification. Padula can still be used for prior art rejection in view of the broad claimed language. In order to expedite and simplify the prosecution, the current office action does not have duplicate rejection using both references. The 102 rejection is based on this newly discovered reference. However, examiner reserves the right to use Padula in any subsequent action if it is appropriate and necessary.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 are rejected under 35 U.S.C. 102(b) as being anticipated by Potard et al (hereafter Potard) ("Using XML Schemas to Create and Encode Interactive 3-D Audio Scenes for Multimedia and Virtual Reality Applications").

Regarding claims 1 and 9, Potard discloses a method and a data stream for generating a three-dimensional audio scene (see title) with a sound source whose spatiality is extended, comprising the steps of:

a) generating a sound object (macro-object) composing the audio scene; and

b) generating three-dimensional audio scene description information including sound source characteristics information for the sound object (see section 2.6),

wherein the sound source characteristics information includes spatiality extension information of the sound source, said spatiality extension information enabling the sound source to include more than one dimension, and includes the size (how many times the macro-object being copied) and shape (for example, the layout of the choir or the shape of the car defined by tyres and exhaust) of the sound source expressed in a three-dimensional space. See also Table 1 that the sound source is defined by spatial size and shape.

Regarding claim 5, Potard discloses a method for consuming a three-dimensional audio scene (see title) with a sound source whose spatiality is extended, comprising the steps of:

a) receiving (through WEB for example with full description of sound scenes; see section 1) a sound object composing the audio scene and three-dimensional audio scene description information including sound source characteristics information for the sound object (see section 3.1); and

b) outputting the sound object based on the three-dimensional audio scene description information ("3-D Sound" in Fig. 6),

wherein the sound source characteristics information includes spatiality extension information, said spatiality extension information enabling the sound source to

include more than one dimension, and includes the size and shape of the sound source expressed in a three- dimensional space (see rejection for claim 1).

Regarding claims 2, 3, 6, 7, 10, 11 and 13-15, Potard discloses that the spatiality extension information of the sound source includes sound source dimension information that is expressed as three components of a set of three-dimensional coordinates (section 2.5.2) with a geometrical center location information (original location).

Regarding claims 4, 8 and 12, Potard discloses that the spatiality extension information of the sound source further includes direction information of the sound source (for example the directivity of the macro-object defining choir) and describes a three-dimensional audio scene by extending the spatiality of the sound source in a direction vertical to the direction of the sound source (by duplicating macro-object in a direction vertical to the direction of the directivity of the macro-object defining choir).

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1, 5 and 9 have been considered but are moot in view of the new ground(s) of rejection.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522.

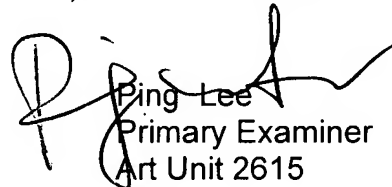
The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Ping Lee  
Primary Examiner  
Art Unit 2615

pwl